INTRODUCTION TO WEST

Modelling and Simulation of Wastewater Treatment Plants (WWTPs)

This online, instructor-facilitated course gives an overview of the aspects to be addressed when modelling biological wastewater treatment plants (WWTPs). The course provides a comprehensive training in WEST, DHI's standard software tool for modelling and dynamic simulation of WWTPs.

The course spans over five weeks, with two-hour sessions per week. Each session includes preparation and home assignments. Additional material will be made available as optional home training.

Upon course completion, you will have learned the main features of WEST and become familiar with its user interface. You will be able to implement a plant layout, to simulate its operation (including basic control rules) and to generate the desired model output to assess its performance. Therefore, you will be equipped to apply WEST in projects and solve challenges related to WWTP operation and optimization.

COURSE METHODOLOGY AND REQUIREMENTS

Training consists of online live sessions, where the trainer actively facilitates the interaction amongst the participants. The course combines theory and practice and will include brief presentations, hands-on exercises, group work sessions, videos, as well as preparation and assignment tasks to be conducted at home. Throughout the course, you will have ample time to discuss tips and tricks, best practices and examples.

Part of the online sessions will be dedicated to group work, which is based on the participants' preparation and assignments tasks. In order for the group work to be successful and to ensure you get to know the software at its best, it is required that two hours are allocated to self-study each week. The assignments should be handed in prior to each session according to the deadline defined by the trainer.

Furthermore, we will include additional course material for each session, which offers the option of investing approximately two extra hours of self-training per week in order to have in-depth grasp of the software.

The online sessions are hosted via the Zoom client, a video conference software easily available for download. For the duration of the course, participants will use a free evaluation license of WEST.

COURSE SESSIONS AND TOPICS

Session 0 - Overview of the structure and methodology of the course (Thursday 03 October)
Topics: Course materials and learning methodology, preparation and assignment requirements, introduction to Zoom meeting software

Session 1 - WWTP layout implementation (Thursday 10 October)
Topics: Intro to Activated Sludge Models, guided user interface, block and model library, building virtual WWTP configuration

Session 2 - Model input definition and model simulation (Thursday 17 October)
Topics: Influent characterization and fractionation, steady state and dynamic simulations, generation and analysis of model output

Session 3 - Use of controllers in WWTP operation (Thursday 24 October)
Topics: Typical controllers in WWTPs, implementation and testing of control rules in WEST, sensors, top-level quantities, data input tool

Session 4 - Evaluation of WWTP performance (Thursday 31 October)
Topics: Variable-process-cost calculators, operational characteristics of simulated WWTP, energy consumption, cost evaluation

DATE AND TIME

This online course is divided into five consecutive sessions.
Session 0 gives you an overview of the course and its rationale, the code of conduct as well as the Zoom client.
Sessions 1 - 4 are each of 120 minutes, including a break.
The sessions take place on Thursdays in 5 consecutive weeks on the following dates:
03 October, 10 October, 17 October, 24 October, and 31 October.
Depending on your preferences, you can choose between the following session times:
05:00-07:00 UTC; or
13:00-15:00 UTC
Calculate your local time in UTC Time Zone Converter here.

FEE

Standard price: € 600 (excl. VAT)
Book-An-Expert (Optional & additional):
You may wish to book your own personal expert to discuss your own project and data. This option is not included in the standard course fee. Please contact course coordinator for conditions for booking your own expert.

ADDITIONAL SESSIONS

Two additional follow-up sessions on advanced modelling with WEST can be planned upon request.

THIS IS INCLUDED

- Training Certificate
- Access to WEST software during course
- 30 days' Internet evaluation license for WEST
- 10% discount on perpetual license or annual subscription packages including WEST by 15 December 2019

IT REQUIREMENTS

- Installation of Zoom desktop client (to be provided by course coordinator prior to the course). You can read more about Zoom here
- Check and learn from DHI's video tutorials on Zoom here
- Installation of WEST (to be provided by course coordinator prior to the course)
- A quality webcam and headset with microphone

LANGUAGE

Lectures and training material are in English.

TARGET GROUP AND PREREQUISITES

The course is intended for a broad audience of (waste) water professionals from academia, industry as well as decision and policy makers, working at all levels of WWTP engineering (design, operation, process optimisation and management).

It is an advantage, but no condition, for participants to have a basic knowledge of wastewater components (COD, nitrogen, phosphorus), treatment and recovery processes and technologies.

REGISTRATION

Registration is on a first-come-first-served basis and closes **Monday 22 September 2019, 14:00 UTC.** When we have received receipt of your payment your registration will be final and your seat guaranteed.

Calculate your local time in UTC Time Zone Converter here.

You register for the course via the Landing & Registration Page for the WEST course

For each of the two session times, the maximum number of participants is 15 to ensure the highest degree of quality learning and skills development for each trainee.

DHI reserves the right to reschedule the course up to one week prior to the commencement of the course.

USEFUL LINKS AND INFORMATION

- Landing & Registration Page for the WEST course
- WEST webinar on YouTube here
- Highlights of WEST here
- WEST product suite here

CONTACT

Natalia Luchko, Learning Coordinator, THE ACADEMY,
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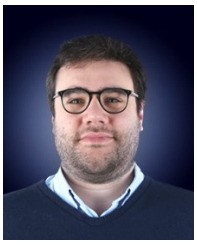
THE TRAINING TEAM

FABIO POLESEL



Fabio Polesel, PhD, is a wastewater engineer working at DHI's urban water department, Denmark. Fabio has good experience in process modelling in biological wastewater treatment systems. His tasks at DHI include wastewater modelling projects, technical support and training in the WEST software.

MSc, Environmental Engineering, Universitá degli Studi di Padova, Italy;

PhD and PostDoc, Environmental Engineering, Technical University of Denmark (DTU).

ENRICO REMIGI

Dr Enrico Remigi is a senior wastewater process modeller at DHI, where he is responsible for model implementation and technical support in wastewater modelling. Enrico is a member of the WEST development team and has extensive experience in WEST modelling projects and training.

MSc, Environmental and Sanitary Engineering, Politecnico di Milano, Italy, and IFA-Tulln, Austria;

PhD, Environmental Engineering, Politecnico di Milano;
PostDoc, University of kwaZulu-Natal, South Africa.

WHAT DO OUR CLIENTS SAY?

"We have been working closely with DHI and on WEST for several months to develop a model for one of our treatment facilities. During this period, we often reached out to the support team both for online and on-site training sessions and assistance. The support team showed professional expertise and availability, helped working out solutions that ensured all our project requirements were met on time." - Barbara Biagi, Process Engineer, Acea Elabori SpA (Gruppo Acea SpA), Rome, Italy

WHAT DO OUR CLIENTS SAY?

"After purchasing the WEST for Design license, I had personalized online training provided by Hector Rey. The experience was frankly satisfactory, with a great profit of time due to the clarity and effectiveness of the sessions. In few sessions I acquired the basic skills for managing WEST, and a good understanding of the activated sludge models (ASMs)." - Luis M. Pérez, Technical Director, Desarrollo de Tecnologias de Depuracion (DTD), Spain

THE ACADEMY BY DHI

THE ACADEMY offers a palette of courses and capacity building packages designed to fit your needs and challenges. We offer standard and/or tailored training - traditional classroom as well as online.

MIKE Powered by DHI courses focus on practical skills, hands-on exercises and teaching you how to get the most out of your software. These courses also enable you to understand the power of the MIKE tools for building decision support systems.

Thematic courses allow you to apply concepts, applications and decision support principles to the entire business process within current areas: aquaculture and agriculture, energy, climate change, flooding, coast and marine, surface and groundwater, urban water, industry, environment and ecosystems, product safety and environmental risk, etc.

Our trainers are experienced professionals, many of whom are recognised international experts in their fields. The use of highly skilled trainers guarantees the quality of THE ACADEMY courses.

Learn more about THE ACADEMY on www.theacademybydhi.com

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